

peripheral cord, which is covered by the advancing whorl; body color crimson; faint spiral striæ on the flattened base; axial sculpture only of incremental lines. Height of shell 5.25; of last whorl 4.0; max. diameter 6.0 mm. Operculum as usual in the genus, with about three whorls.

THE MOLLUSCAN FAUNA OF NORTHAMPTON COUNTY, PENNSYLVANIA.

BY G. W. CAFFREY.

So far as is known to the writer no list of the mollusca of this county has been published up to this time. The species named in the following list have been found within the county, and nearly all occur in the vicinity of Bethlehem, as well as in other localities explored.

Helix appressa Say, described by Hartman in "Conchologica Cestricea" as occurring "under flat stones on the Lehigh River," has not been found by the writer, though diligently sought along that stream from Bethlehem to its confluence with the Delaware River at Easton.

The physical conditions in the Lehigh Valley and adjacent lands are favorable to the development of the shell-bearing mollusca, limestone being abundant, and the waters strongly impregnated with that mineral. The limestone cliffs, old quarries and abandoned limekilns found on nearly every farm, afford good collecting ground for *Helicidæ* and *Pupillidæ*.

LIMACIDÆ.

- Limax maximus* L. Bethlehem.
Limax agrestis Müll. Bethlehem, W. L. King.
Limax campestris Binn. Bethlehem.

ZONITIDÆ.

- Gastrodonta gularis* Say. One specimen in drift on Monocasy Creek.
Gastrodonta suppressa Say. Monocasy Creek.
Zonitoides nitida Müll. Bank of Monocasy Creek.
Vitræa cellaria Müll. Rare, West Bethlehem, bank of Monocasy Creek, W. L. King.
Zonitoides arborea Say. Common.

Vitrea indentata Say. Uncommon, Bethlehem.

Vitrea viridula Mke. (*radiatula* Alder). Rare, Bethlehem.

ENDODONTIDÆ.

Pyramidula alternata Say. Common, Bethlehem. Specimens of a creamy-white, lacking the usual markings, have been found on the Monocasy Creek.

Pyramidula striatella Anthony. Common, Bethlehem.

Helicodiscus lineatus Say. Quarries and limey situations, Bethlehem.

HELICIDÆ.

Polygyra (Mesodon) thyroides Say. Frequent, Bethlehem.

Polygyra (Mesodon) albolabris Say. Common, Bethlehem.

Polygyra (Triodopsis) tridentata Say. Common, Bethlehem.

Polygyra (Triodopsis) introferens Bland. A single specimen (not *inflecta*), Bethlehem.

Polygyra (Stenotrema) monodon fraterna Say. Common, Bethlehem.

Polygyra (Stenotrema) hirsuta Say. Common, Bethlehem.

Vallonia pulchella Müll. Common, Bethlehem.

Vallonia costata Müll. Not common, Bethlehem.

PUPILLIDÆ.

Pupa armifera Say. Very common, Bethlehem.

Pupa marginata Say (*fallax* Binney). Numerous in one locality, Bethlehem.

Pupa contracta Say. Common, Bethlehem.

Pupa pentodon Say. One or two specimens, Bethlehem, W. L. King.

Pupa corticaria Say. Under bark of dead willow tree, Monocasy Creek, rare, Bethlehem.

Vertigo ovata Say. Rare, Bethlehem.

Vertigo milium Gould. Two specimens, Bethlehem.

FERUSSACIDÆ.

Cochlicopa lubrica Müll. (*Ferussacia subcylindrica* Auct.). Under decaying leaves, woods north of Bethlehem.

Cæcilionella acicula Müll. Lehigh Mountain, contiguous to Fountain Hill Borough, spreading from greenhouses; also found by Mr. W. L. King in his yard in Bethlehem.

SUCCINEIDÆ.

- Succinea obliqua*, Say. Common, Bethlehem.
Succinea avara Say. Damp meadows on Monocasy Creek.

PHILOMYCIDÆ.

- Philomycus carolinensis* Bosc. Freemansburg, Pa.

AURICULIDÆ.

- Carychium exiguum* Say. Bethlehem.

LIMNAEIDÆ.

- Limnaea catascopium* Say. Monocasy Creek, unusually large specimens taken, measuring, length 26, diam. 15 mill.
Limnaea desidiosa Say. Monocasy Creek.
Planorbis bicarinatus Say. Lehigh and Delaware Rivers, common.
Planorbis campanulatus Say. Lehigh River, not common.
Planorbis deflectus Say. Canal and pond, Bethlehem.

ANCYLIDÆ.

- Ancylus rivularis* Say. Delaware River, Easton, Pa.

PHYSIDÆ.

- Physa heterostropha* Say. All streams.
Physa ancillaria Say. Monocasy Creek.

VALVATIDÆ.

- Valvata tricarinata* Say. Monocasy Creek, common.
Valvata bicarinata Lea. Pond, Bethlehem.

AMNICOLIDÆ.

- Amnicola decisa* Hald. Canal, Bethlehem.
Amnicola granum Say. Lehigh River.
Somatogyrus altilis Lea. Lehigh River.
Pomatiopsis lapidaria Say. Monocasy Creek, not common.

VIVIPARIDÆ.

- Campeloma decisum* Say. Lehigh River and Monocasy Creek common.
Lioplax subcarinata Say. With the preceding species, common.

PLEUROCERIDÆ.

Goniobasis virginica Gmel. Shells badly eroded in the Lehigh River, but perfect and large among rocks at the mouth of Monocasy Creek.

SPHÆRIIDÆ.

Sphærium simile Say. Mouth of Monocasy Creek, common.

Sphærium striatinum Lam. Saucon Creek (W. L. King).

Pisidium virginicum Gmel. Lehigh River, Delaware River (King).

Pisidium compressum Prime. Lehigh River.

UNIONIDÆ.

Unio complanatus Sol. Lehigh and Delaware Rivers, common.

Unio ochraceus Say. Delaware River, common.

Margaritana marginata Say. Delaware River, common.

Anodonta fluviatilis Lea. Lehigh Canal; also ponds in the vicinity of Bethlehem.

 NEW FLORIDA UNIO.

 BY L. S. FRIERSON.

No very clear idea of the *Unio coruscus* could exist because it has never been figured. Through the courtesy of Mr. Van Name, of the State Museum of New York, an accurate photograph of the type shell is herewith given to readers of the NAUTILUS (Plate I, figs. 1, 2, 3).

Mr. Van Name having also kindly compared suites of Florida *Uniones* with Gould's shells (three in number), an undescribed shell has been found which is herewith described.

UNIO TENUISCOLUS n. sp. Plate I, figs. 4, 5, 6.

Shell transversely elliptical, rather solid, quite small, being the smallest member of the great *buckleyi* group yet published; smooth, eradiate (except when quite young), brown-olive, shining on the sides, the posterior area rough and dull; dorsal and basal margins nearly parallel (the former a little arched in some examples). Posterior point low and widely biangulate; truncate in front. Nacre purple and salmon-colored. Teeth double in left, single in right valve, quite stout. Length $36\frac{1}{2}$, alt. 20, diam. $14\frac{1}{2}$ mm.